



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

ULF P.F. LINDAHL et al

Serial No. 109,936

Filed: January 4, 1980

For: HEPARIN FRAGMENTS HAVING
SELECTIVE ANTICOAGULATION
ACTIVITY

Art Unit: 125

Examiner: Brown

RECEIVED

MAR 16 1981

R E S P O N S E

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

GROUP 120

Sir:

In response to the Office Action dated December 8,
1980, please amend the above-identified application as
follows:

CM 1 (Amended). Heparin fragments[, characterized by] having
14¹/_N-18 sugar units, wherein the main component is the di-
saccharide unit L-iduronosyl-2-O-sulphate-N-sulpho-D¹/_N-
glucosamine-6-O-sulphate [being the main component], and
where unsulphated L-iduronic acid is in a position situated
3¹/_N-5 sugar units from the unreducing terminal and is followed
by a unit selected from the group consisting of N-sulpho¹/_N-
D-glucosamine sulphate and N-acetyl-glucosamine in sulphated
and unsulphated form.

claim 2
Claim 2, line 1, delete ",characterized by"
and substitute therefor --having--.

a2 3 (Amended). Pharmaceutical compositions[, characterized
in that they comprise] for preventative treatment or treatment
of arterial thrombosis containing heparin fragments having
selective anticoagulation activity and containing 14¹/_N-18
sugar units, wherein the main component is the disaccharide
unit L-iduronosyl-2-O-sulphate-N-sulpho-D-glucosamine-6-O¹/_N-
sulphate [being the main component], and where unsulphated
L-iduronic acid is in a position situated 3¹/_N-5 sugar units